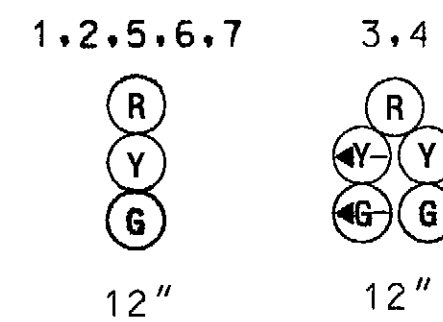
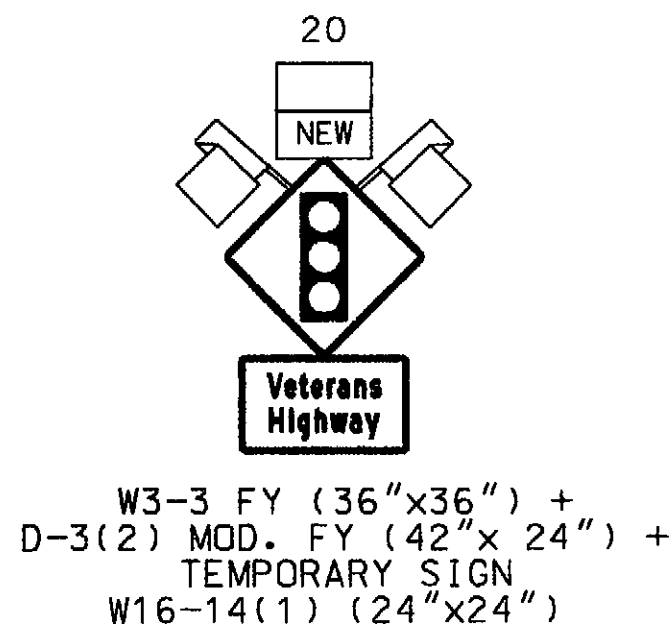
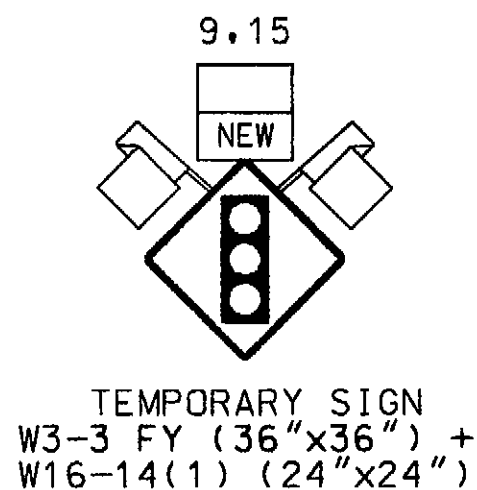


PROPOSED LED SIGNALS

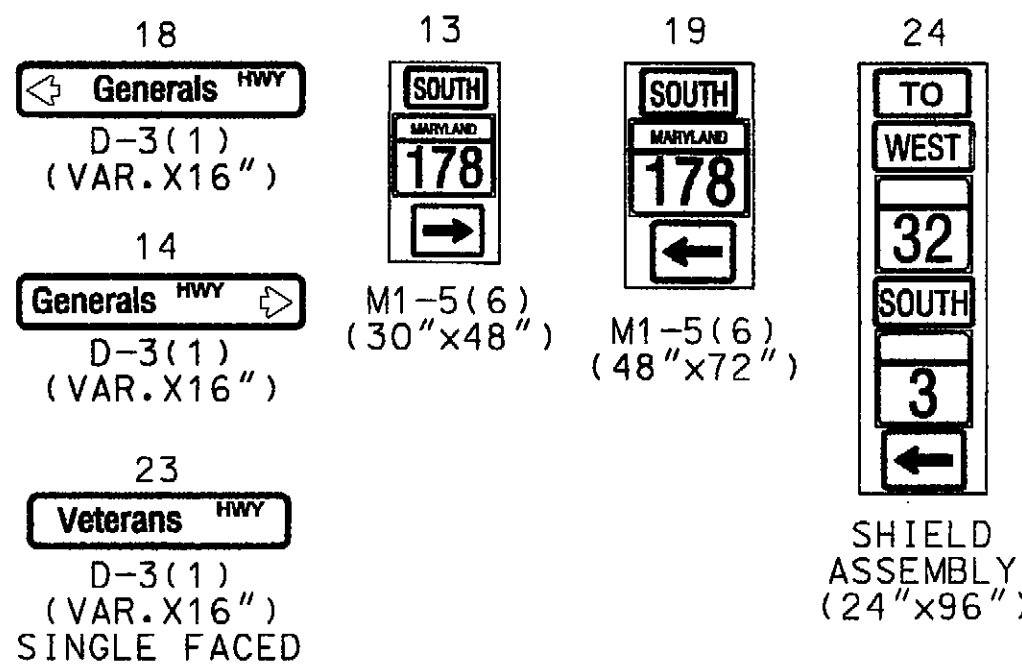


PROPOSED VIDEO DETECTION

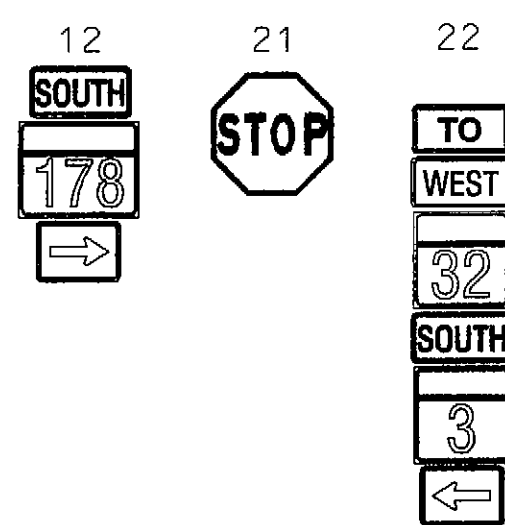
a, b



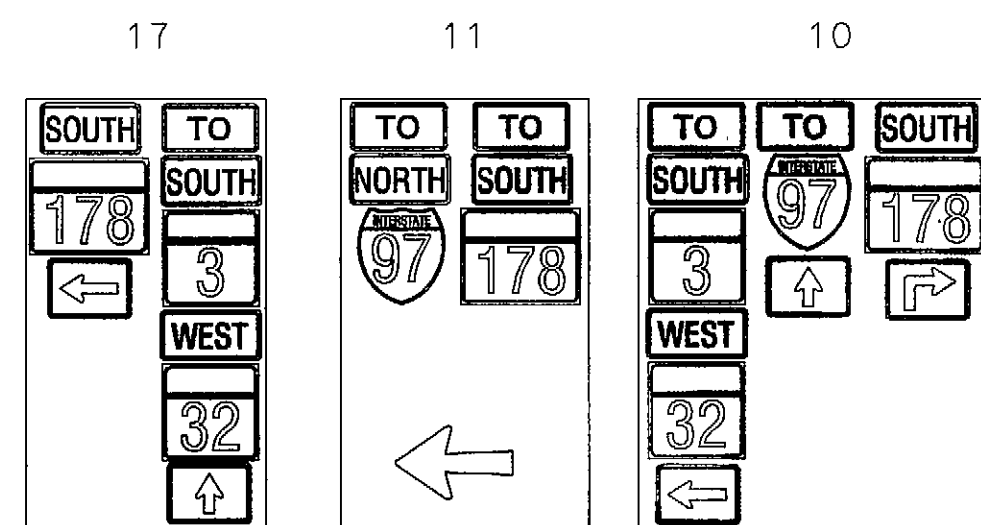
PROPOSED SIGNS



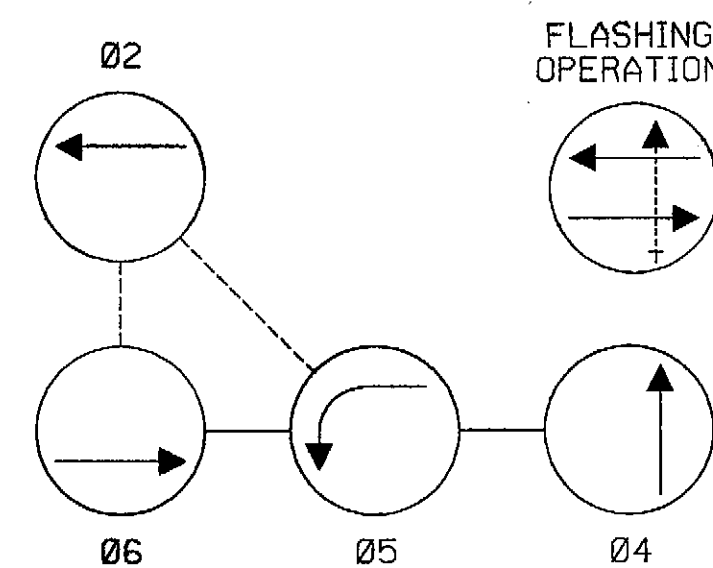
EXISTING SIGNS TO BE REMOVED



EXISTING SIGNS TO REMAIN



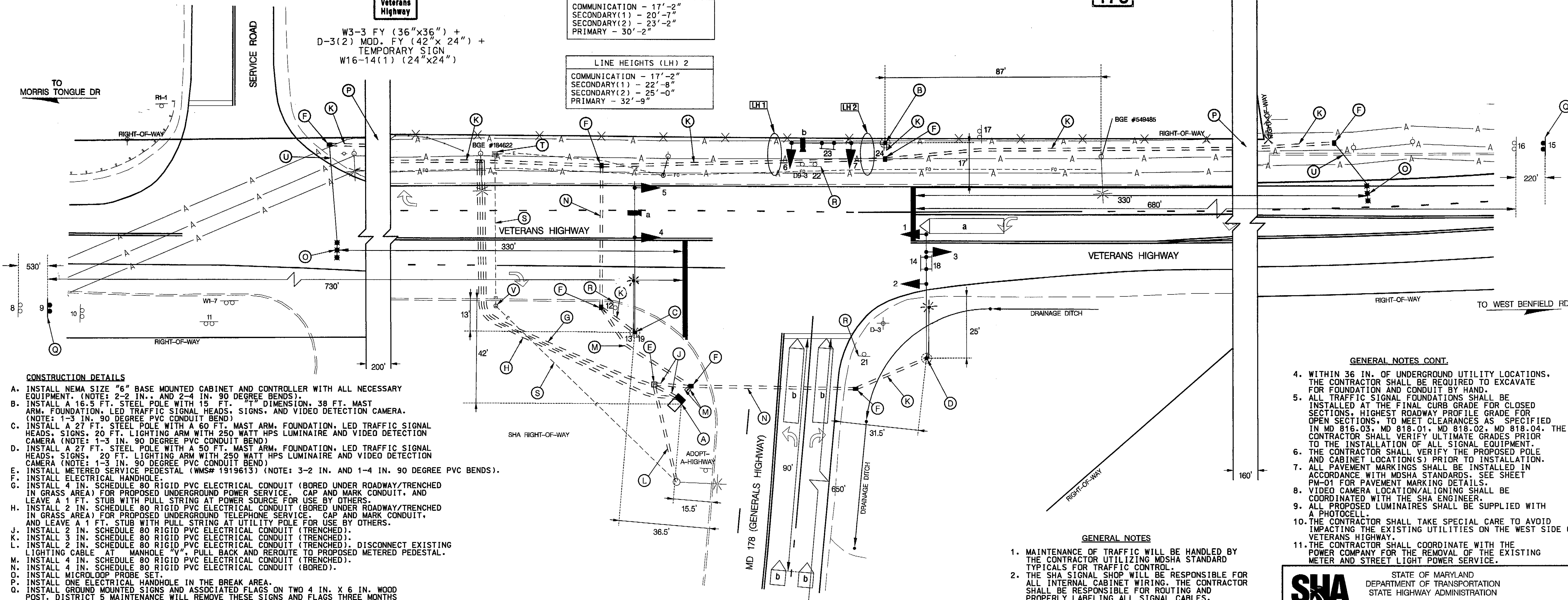
NEMA PHASING



NOTE: PHASES ASSOCIATED BY A DASHED LINE MAY/WILL OPERATE CONCURRENTLY. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY. PHASE 05 SHALL LAG BEHIND PHASES 02 & 06.

LINE HEIGHTS (LH) 1	
COMMUNICATION - 17'-2"	
SECONDARY(1) - 20'-7"	
SECONDARY(2) - 23'-2"	
PRIMARY - 30'-2"	

LINE HEIGHTS (LH) 2	
COMMUNICATION - 17'-2"	
SECONDARY(1) - 22'-8"	
SECONDARY(2) - 25'-0"	
PRIMARY - 32'-9"	



CONSTRUCTION DETAILS

- INSTALL NEMA SIZE "6" BASE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT. (NOTE: 2-2 IN. AND 2-4 IN. 90 DEGREE BENDS).
- INSTALL A 16.5 FT. STEEL POLE WITH 15 FT. DIMENSION, 38 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, SIGNS, AND VIDEO DETECTION CAMERA. (NOTE: 1-3 IN. 90 DEGREE PVC CONDUIT BEND).
- INSTALL A 27 FT. STEEL POLE WITH A 60 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, SIGNS, 20 FT. LIGHTING ARM WITH 250 WATT HPS LUMINAIRE AND VIDEO DETECTION CAMERA. (NOTE: 1-3 IN. 90 DEGREE PVC CONDUIT BEND).
- INSTALL A 27 FT. STEEL POLE WITH A 50 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, SIGNS, 20 FT. LIGHTING ARM WITH 250 WATT HPS LUMINAIRE AND VIDEO DETECTION CAMERA. (NOTE: 1-3 IN. 90 DEGREE PVC CONDUIT BEND).
- INSTALL METERED SERVICE PEDESTAL (WMS# 1919613) (NOTE: 3-2 IN. AND 1-4 IN. 90 DEGREE PVC BENDS).
- INSTALL ELECTRICAL HANDHOLE.
- INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (BORED UNDER ROADWAY/TRENCHED IN GRASS AREA) FOR PROPOSED UNDERGROUND POWER SERVICE. CAP AND MARK CONDUIT, AND LEAVE A 1 FT. STUB WITH PULL STRING AT POWER SOURCE FOR USE BY OTHERS.
- INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (BORED UNDER ROADWAY/TRENCHED IN GRASS AREA) FOR PROPOSED UNDERGROUND TELEPHONE SERVICE. CAP AND MARK CONDUIT, AND LEAVE A 1 FT. STUB WITH PULL STRING AT UTILITY POLE FOR USE BY OTHERS.
- INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED).
- INSTALL 3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED).
- INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED). DISCONNECT EXISTING LIGHTING CABLE AT MANHOLE "V", PULL BACK AND REROUTE TO PROPOSED METERED PEDESTAL.
- INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED).
- INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (BORED).
- INSTALL MICROLOOP PROBE SET.
- INSTALL ONE ELECTRICAL HANDHOLE IN THE BREAK AREA.
- INSTALL GROUND MOUNTED SIGNS AND ASSOCIATED FLAGS ON TWO 4 IN. X 6 IN. WOOD POST. DISTRICT 5 MAINTENANCE WILL REMOVE THESE SIGNS AND FLAGS THREE MONTHS AFTER INSTALLATION.
- REMOVE EXISTING GROUND MOUNTED SIGN AND SUPPORTS.
- ABANDON EXISTING ELECTRICAL CONDUIT.
- REMOVE EXISTING METERED SERVICE PEDESTAL (SEE NOTE 11).
- INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE NON-METALLIC ELECTRICAL CONDUIT (FOR DETECTOR SLEEVE)
- REMOVE EXISTING ELECTRICAL MANHOLE.
- INSTALL GROUND MOUNTED SIGNS AND ASSOCIATED FLAGS ON TWO 4 IN. X 6 IN. WOOD POST. DISTRICT 5 MAINTENANCE WILL REMOVE THESE SIGNS AND FLAGS THREE MONTHS AFTER INSTALLATION. THE W3-3 "SIGNAL AHEAD" AND D-3(2) MOD SIGNS SHALL REMAIN PERMANENTLY.

UTILITY LEGEND

— E — E —	ELECTRIC CABLES	— SD — SD —	STORM DRAIN
— A — A —	AERIAL CABLES	— G — G —	GAS MAIN
— T — T —	TELEPHONE CABLES	— W — W —	WATER MAIN
— F — F —	FIBER-OPTIC	— S — S —	SEWER MAIN

GENERAL NOTES

- MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING MSHA STANDARD TYPICALS FOR TRAFFIC CONTROL.
- THE SHA SIGNAL SHOP WILL BE RESPONSIBLE FOR ALL INTERNAL CABINET WIRING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING AND PROPERLY LABELING ALL SIGNAL CABLES.
- THE CONTRACTOR SHALL CONTACT MISS UTILITY TO VERIFY ALL UNDERGROUND UTILITIES PRIOR TO THE INSTALLATION OF PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.

GENERAL NOTES CONT.

- WITHIN 36 IN. OF UNDERGROUND UTILITY LOCATIONS, THE CONTRACTOR SHALL BE REQUIRED TO EXCAVATE FOR FOUNDATION AND CONDUIT BY HAND.
- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL CURB GRADE FOR CLOSED SECTIONS. HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- THE CONTRACTOR SHALL VERIFY THE PROPOSED POLE AND CABINET LOCATION(S) PRIOR TO INSTALLATION.
- ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS. SEE SHEET PM-01 FOR PAVEMENT MARKING DETAILS.
- VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
- ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCELL.
- THE CONTRACTOR SHALL TAKE SPECIAL CARE TO AVOID IMPACTING THE EXISTING UTILITIES ON THE WEST SIDE OF VETERANS HIGHWAY.
- THE CONTRACTOR SHALL COORDINATE WITH THE POWER COMPANY FOR THE REMOVAL OF THE EXISTING METER AND STREET LIGHT POWER SERVICE.



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 178 (GENERALS HIGHWAY) AT VETERANS HIGHWAY
MILLERSVILLE, MD

TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20' ADVERTISED DATE JULY 1, 2010 CONTRACT NO. XX4475185

DESIGNED BY	MMO	COUNTY	ANNE ARUNDEL
DRAWN BY	MMO	LOGMILE	02017808.06
CHECKED BY	MTS/LCS	TMS NO.	J849
F.A.P. NO.		TOD NO.	N/A

TS NO. 4753	DRAWING SG-01	OF 02	SHEET NO. 01 OF 03
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Baltimore, MD 21244
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TOD No: XX447-16M
SHA No: AA756A57/857
MD 178 @ Veterans Highway

PLOTTED: Thursday, June 03, 2010 AT 09:20 AM
FILE: I:\PROJECTS\1014628\1014628_0048\Drawings\TRAFFIC\SG-P001_MD178.dgn